Claims

1. A circuit arrangement for controlling an inductive load, in particular a protective circuit providing safe operation of an inductive load, which arrangement has:

- a first and a second input (1, 2), with the first input (1) being connected to a first potential (+) of a supply voltage source (6) and the second input (2) being connected to a second potential (-) of the supply voltage source (6),
- an output (3) to which the load (5) is connected, with said load (5) being connected on the one hand to the output (3) and on the other hand to the second potential (-) of the supply voltage source (6),
- a first switch (S1), which can be controlled by a first control signal (UST1), for switching the load (5) connected on the one hand to the first input (1) and on the other hand to the output (3) on and off,
- a freewheeling circuit (FLK) which is connected on the one hand to the second input (2) and on the other hand to the output (3) and has a second switch (S2), and
- a monitoring unit (8, 11) which monitors a potential (UA) in the freewheeling circuit (FLK) and closes and/or opens the second switch (S2) via a second control signal (UST2) as a function of said potential (UA), characterized in that the monitoring unit (8) has a delay element (12) that opens the second switch (S2) after a predefined period (Δt) when the predefined voltage threshold ($U_{A,\,Min}$) has been undershot or exceeded, with the result that after the predefined period (Δt) the energy stored in the load (5) will have discharged via the freewheeling circuit.

2. The circuit arrangement as claimed in claim 1, characterized in that the monitoring unit (8) has a linking unit (9) having two inputs (ENA; UE, Reset) and one output (UST1), with the first control signal (UST1)

being dependent on the level and the time curve of the signals at the inputs (ENA; UE, Reset).

3. A method for controlling an electrical load, said method having the following steps:

- Checking an actuation status of a first switch (S1),
- Comparing a first voltage (UA) with a predefined voltage threshold ($U_{A, Min}$), with a fault situation being determined depending on said comparison and the actuation status of the first switch (S1),
- Operating a second switch (S2) as a function of said comparison and/or the actuation status of the first switch (S1), characterized in that operating of the second switch (S2) is delayed by a predefined period (Δt), with the result that after the predefined period (Δt) the energy stored in the load (5) will have discharged via the freewheeling circuit.

4. The method as claimed in claim 3, characterized in that after a fault situation the first switch (S1) will be closed by a switch-on-again signal.